

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/012149

A. CLASSIFICATION OF SUBJECT MATTER  
Int.Cl<sup>7</sup> C09K11/59

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
Int.Cl<sup>7</sup> C09K11/59Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Jitsuyo Shinan Koho 1940-1992 Toroku Jitsuyo Shinan Koho 1994-1996  
Kokai Jitsuyo Shinan Koho 1971-1992 Jitsuyo Shinan Toroku Koho 1996-2004Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
JICST (JOIS)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1193306 A2 (Sumitomo Chemical Co., Ltd.), 03 April, 2002 (03.04.02), & JP 2002-332481 A & US 2002-38861 A1 & CN 1345908 A	1-7
X	JP 2003-132803 A (Hitachi, Ltd.), 09 May, 2003 (09.05.03), & CN 1417831 A & US 2003-85853 A1	1-7
X	JP 2003-142004 A (Hitachi, Ltd.), 16 May, 2003 (16.05.03), & CN 1417831 A & US 2003-85853 A1	1-7
X	JP 2003-213254 A (Tosoh Corp.), 30 July, 2003 (30.07.03), (Family: none)	1-7

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search  
11 November, 2004 (11.11.04)Date of mailing of the international search report  
07 December, 2004 (07.12.04)Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

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PCT/JP2004/012149

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2003-27054 A (Kasei Optonix, Ltd.), 29 January, 2003 (29.01.03), (Family: none)	1-7
X	EP 1199757 A2 (Philips Corporate Intellectual Property GmbH), 24 April, 2002 (24.04.02), & DE 10051242 A1 & CN 1349262 A & US 2002-105266 A1 & JP 2002-223008 A	1-7
P,X	US 2004-27047 A1 (Kasei Optonix, Ltd.), 12 February, 2004 (12.02.04), & JP 2004-131677 A2	1-7
P,X	JP 2003-261870 A (Tosoh Corp.), 19 September, 2003 (19.09.03), (Family: none)	1-7
P,X	JP 2004-18679 A (Konica Minolta Holdings Inc.), 22 January, 2004 (22.01.04), (Family: none)	1-7
P,X	JP 2003-261868 A (National Institute of Advanced Industrial Science and Technology), 19 September, 2003 (19.09.03), (Family: none)	1-7

Claims 1-7 in this application describe a phosphor defined by a desired property that a value calculated from a peak amplitude derived from  $\text{Eu}^{2+}$  and a peak amplitude derived from  $\text{Eu}^{3+}$  is at least 40% for a pattern obtained by the first-order-differentiation of an X-ray absorption end vicinity structure spectrum.

However, since this calculation expression is not generally used for specifying a phosphor and therefore the scope of a phosphor represented by such a calculation expression cannot be specified even allowing for a technical common sense at the time of the application, these claims fail to fulfill the requirement of clearness and conciseness stipulated in PCT Article 6.

In addition, various types of phosphors included in this calculation expression are assumed, however, only two types of phosphors are disclosed in the descriptions of this application; therefore only a limited number of phosphors are disclosed in the description within the meaning of PCT Article 5 and are not supported within the meaning of PCT Article 6.

Accordingly, this search has been carried out mainly on a specific phosphor specifically cited in the descriptions.